<u>IN THE CLAIMS</u>:

Please amend Claims 1, 6 to 8 and 12 to 14 as shown below. The claims, as pending in the subject application, read as follows:

1. (Currently Amended) A printing system including an information processing apparatus which outputs print data and a printing apparatus which receives the print data from said information processing apparatus and prints a color image on a sheet,

wherein said information processing apparatus comprises:

a storage ~~means for storing~~ <u>unit configured to store</u> a plurality of tables for defining a set of dither matrix patterns used for character/line image and halftone image for each color component;

a designation ~~means for designating~~ <u>unit configured to designate</u> a table among the plurality of tables;

a generation ~~means for generating~~ <u>unit configured to generate</u> image data for respective printing color components of an image based on data to be print-outputted delivered from higher processing and quantizing the generated image data for respective printing color components using dither matrixes specified by the table designated by said designation ~~means~~ <u>unit</u>;

a coding ~~means for compress-encoding~~ <u>unit configured to compress-encode</u> the quantized image data for the respective printing color components generated by said generation ~~means~~ <u>unit</u>;

a notification ~~means for predicting~~ <u>unit configured to predict</u> coded data amounts for the respective printing color components based on the table designated by said

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designation ~~means~~ <u>unit</u> and the sizes of halftone image areas and character/line image areas included in the respective printing color components, generating memory allocation ratio information based on a ratio of the predicted coded data amounts for the respective printing color components coded by said coding ~~means~~ <u>unit</u> and notifying said printing apparatus of the memory allocation ratio information so that said printing apparatus allocates memory areas for respective color components; and

an output ~~means for~~ <u>unit configured to</u>, after said notification ~~means~~ <u>unit</u> notifies said printing apparatus of the memory allocation ratio information, ~~outputting~~ <u>output</u> the coded image data of the respective printing color components coded by said coding ~~means~~ <u>unit</u> to said printing apparatus,

and wherein said printing apparatus comprises:

a reception buffer;

<u>a</u> memory allocation ~~means for receiving~~ <u>unit configured to receive</u> the memory allocation information notified by said notification ~~means~~ <u>unit</u> and allocating, in accordance with the received memory allocation ratio information, memory areas for respective color components in the reception buffer so that the memory sizes of each memory areas correspond to ratios of the predicted coded data amounts for the respective printing color components;

<u>a</u> receiving ~~means for~~ <u>unit configured to</u>, after said memory allocation ~~means~~ <u>unit</u> allocates memory areas, ~~receiving~~ <u>receive</u> coded image data for respective color components and storing the received coded image data of respective color components into respective allocated memory areas;

plural decoding ~~means~~ <u>units</u>, independently provided for the respective

printing color components, ~~for decoding~~ <u>configured to decode</u> coded data stored in the

memory areas to image data; and

<u>a</u> printing ~~means for printing~~ <u>unit configured to print</u> the image data for

respective color components decoded by said plural decoding ~~means~~ <u>units</u> on a sheet.

2. (Original) The printing system according to claim 1, wherein respective

areas of said reception buffer allocated for the respective printing color components are

utilized as a ring buffer.

3. to 5. (Cancelled)

6. (Currently Amended) A printing system including an information

processing apparatus which outputs print data and a printing apparatus which receives the

print data from said information processing apparatus and prints a color image on a sheet,

wherein said information processing apparatus comprises:

<u>a</u> storage ~~means for storing~~ <u>unit configured to store</u> a plurality of tables for

defining a set of dither matrix patterns used for character/line image and halftone image for

each color component;

<u>a</u> designation ~~means for designating~~ <u>unit configured to designate</u> a table

among the plurality of tables;

<u>a</u> generation ~~means for generating~~ <u>unit configured to generate</u> image data for

respective printing color components of an image based on data to be print-outputted

delivered from higher processing and quantizing the generated image data for respective

printing color components using dither matrixes specified by the table designated by said

designation ~~means~~ <u>unit</u>;

   <u>a</u> coding ~~means for compress-encoding~~ <u>unit configured to compress-encode</u>

the quantized image data for the respective printing color components generated by said

generation ~~means~~ <u>unit</u>;

   <u>a</u> notification ~~means for calculating~~ <u>unit configured to calculate</u> code data

amounts for the respective printing color components by counting data amounts of the

quantized halftone image areas and character/line image areas for the respective printing

color components in accordance with the table designated by said designation ~~means~~ <u>unit</u>,

generating memory allocation ratio information based on a ratio of the calculated coded

data amounts for the respective printing color components and notifying said printing

apparatus of the memory allocation ratio information so that said printing apparatus

allocates memory area for respective color components; and

   <u>an</u> output ~~means for~~ <u>configured to</u>, after said notification ~~means~~ <u>unit</u> notifies

said printing apparatus of the memory allocation ratio information, ~~outputting~~ <u>output</u> the

coded image data of the respective printing color components coded by said coding ~~means~~

<u>unit</u> to said printing apparatus,

   and wherein said printing apparatus comprises:

   a reception buffer;

   <u>a</u> memory allocation ~~means for receiving~~ <u>unit configured to receive</u> the

memory allocation information notified by said notification ~~means~~ <u>unit</u> and allocating, in

accordance with the received memory allocation ratio information, memory areas for

respective color components in the reception buffer so that the memory sizes of each memory areas correspond to ratios of the predicted coded data amounts for the respective printing color components;

a receiving ~~means for~~ <u>unit configured to</u>, after said memory allocation ~~means~~ <u>unit</u> allocates memory areas, ~~receiving~~ <u>receive</u> coded image data for respective color components and storing the received coded image data of respective color components into respective allocated memory areas;

plural decoding ~~means~~ <u>units,</u> independently provided for the respective printing color components, ~~for decoding~~ <u>configured to decode</u> coded data stored in the memory areas to image data; and

a printing ~~means for printing~~ <u>unit configured to print</u> the image data for respective color components decoded by said plural decoding ~~means~~ <u>units</u> on a sheet.

7. (Currently Amended) The printing system according to claim 6, wherein said information processing apparatus further comprises:

a request ~~means for requesting~~ <u>unit configured to request</u> status information of said reception buffer to said printing apparatus;

a determination ~~means for determining~~ <u>unit configured to determine</u> whether or not next page compressed data for the respective printing color components can be stored in available areas of the reception buffer for the respective printing color components, based on the status information obtained by said request ~~means~~ <u>unit</u>; and

a control ~~means for~~ <u>unit configured to</u>, if said determination ~~means~~ <u>unit</u> determine that the next page compressed data can be stored, ~~deleting~~ <u>delete</u> the memory

allocation ratio information to be notified by said notification ~~means~~ <u>unit</u> and causing said output ~~means~~ <u>unit</u> to output the next page of compressed data.

8. (Currently Amended) An information processing apparatus, which is connectable to a printing apparatus in which sizes of reception buffer memory allocated for respective color components are changed in accordance with external instruction information, and which outputs print data to said printing apparatus, comprising:

<u>a</u> storage ~~means for storing~~ <u>unit configured to store</u> a plurality of tables for defining a set of dither matrix patterns used for character/line image and halftone image for each color component;

<u>a</u> designation ~~means for designating~~ <u>unit configured to designate</u> a table among the plurality of tables;

<u>a</u> generation ~~means for generating~~ <u>unit configured to generate</u> image data for respective printing color components of an image based on data to be print-outputted delivered from higher processing and quantizing the generated image data for respective printing color components using dither matrixes specified by the table designated by said designation ~~means~~ <u>unit</u>;

<u>a</u> coding ~~means for compress-encoding~~ <u>unit configured to compress-encode</u> the quantized image data for the respective printing color components generated by said generation ~~means~~ <u>unit</u>;

<u>a</u> notification ~~means for predicting~~ <u>unit configured to predict</u> coded data amounts for the respective printing color components based on the table designated by said designation ~~means~~ <u>unit</u> and the sizes of halftone image areas and character/line image areas

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included in the respective printing color components, generating memory allocation ratio information based on a ratio of the predicted coded data amounts for the respective printing color components coded by said coding ~~means~~ unit and notifying said printing apparatus of the memory allocation ratio information so that said printing apparatus allocates memory areas for respective color components; and

an output ~~means for~~ unit configured to, after said notification ~~means~~ unit notifies said printing apparatus of the memory allocation ratio information, ~~outputting~~ output the coded image data of the respective printing color components coded by said coding ~~means~~ unit to said printing apparatus.

9. to 11. (Cancelled)

12. (Currently Amended) An information processing apparatus, which is connectable to a printing apparatus in which sizes of reception buffer memory allocated for respective color components are changed in accordance with external instruction information, and which outputs print data to said printing apparatus, comprising:

a storage ~~means for storing~~ unit configured to store a plurality of tables for defining a set of dither matrix patterns used for character/line image and halftone image for each color component;

a designation ~~means for designating~~ unit configured to designate a table among the plurality of tables;

a generation ~~means for generating~~ unit configured to generate image data for respective printing color components of an image based on data to be print-outputted

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delivered from higher processing and quantizing the generated image data for respective

printing color components using dither matrixes specified by the table designated by said

designation ~~means~~ unit;

    a coding ~~means for compress-encoding~~ unit configured to compress-encode

the quantized image data for the respective printing color components generated by said

generation ~~means~~ unit;

    a notification ~~means for calculating~~ unit configured to calculate code data

amounts for the respective printing color components by counting data amounts of the

quantized halftone image areas and character/line image areas for the respective printing

color components in accordance with the table designated by said designation ~~means~~ unit,

generating memory allocation ratio information based on a ratio of the calculated coded

data amounts for the respective printing color components and said printing apparatus of

notifying the memory allocation ratio information so that said printing apparatus allocates

memory area for respective color components; and

    an output ~~means for~~ unit configured to, after said notification ~~means~~ unit

notifies said printing apparatus of the memory allocation ratio information, ~~outputting~~

output the coded image data for the respective printing color components coded by said

coding ~~means~~ unit to said printing apparatus.

    13. (Currently Amended) The information processing apparatus according

to claim 12, further comprising:

    a request ~~means for requesting~~ unit configured to request status information

of said reception buffer to said printing apparatus;

a determination ~~means for determining~~ <u>unit configured to determine</u> whether or not next page compressed data for the respective printing color components can be stored in available areas of the reception buffer for the respective printing color components, based on the status information obtained by said request ~~means~~ <u>unit</u>; and

a control ~~means for~~ <u>unit configured to</u>, if said determination ~~means~~ <u>unit</u> determine that the next page compressed data can be stored, ~~deleting~~ <u>delete</u> the memory allocation ratio information to be notified by said notification ~~means~~ <u>unit</u> and causing said output ~~means~~ <u>unit</u> to output the next page of compressed data.

14. (Currently Amended) A control method for an information processing apparatus, which is connectable to a printing apparatus in which sizes of reception buffer memory allocated for respective color components are changed in accordance with external instruction information, and which outputs print data to the printing apparatus, said method comprising:

a storing step of storing a plurality of tables for defining a set of dither matrix patterns used for character/line image and halftone image for each color component;

a designation step of designating a table among the plurality of tables;

a generation step of generating image data for respective printing color components of an image based on data to be print-outputted delivered from higher processing and quantizing the generated image data for respective printing color components using dither matrixes specified by the table designated in said designation step;

a coding step of compress-encoding the quantized image data for the respective printing color components generated in said generation step;

a notification step of predicting coded data amounts for the respective printing color components based on the table designated in said designation step and the sizes of halftone image areas and character/line image areas included in the respective printing color components ~~image to be printed~~, generating memory allocation ratio information based on a ratio of the predicted coded data amounts for the respective printing color components coded in said coding step and notifying the printing apparatus of the memory allocation ratio information so that said printing apparatus allocates memory area for respective color components; and

an output step for, after said notification step notifies said printing apparatus of the memory allocation ration information, outputting the coded image data for the respective printing color components coded in said coding step to the printing apparatus.

15. (Cancelled)

16. (Previously Presented) A computer-readable medium that stores a computer program for causing a computer to implement the method recited in claim 14.